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ENVIRONMENT

Subject:
GE Aviation – Altitude Test Facility
Data Summary of Sixteenth Air Sampling Event – September 2014

Date:
October 7, 2014

Dear PCB Coordinator:

On September 11, 2014, GE Aviation, an operating division of the General Electric Company (GE), performed indoor air testing activities at the Altitude Test Facility (ATF) at GE's facility in Evendale, Ohio, in accordance with EPA's January 16, 2014 amendment to EPA's December 19, 2012 approval allowing GE to use the ATF for jet engine testing pursuant to 40 CFR § 761.62(c). This report is being submitted pursuant to Consent Agreement and Final Order (TSCA-05-2014-0008) filed on April 28, 2014.

GE collected two air samples prior to conducting active jet engine testing at the ATF on September 11, 2014, and received the laboratory report containing the results on September 26, 2014. Both samples were "non-detect" for PCBs. Details on the sampling event follow.

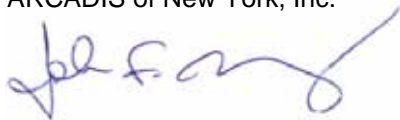
Air test sample ATF-AR-C43-10, located adjacent to the #43 Test Cell Chamber of the ATF, and air test sample ATF-AR-CR2-16, located on the second floor of the compressor room, were both taken over an 8-hour interval. The samples were collected on September 11, 2014, during routine facility maintenance, prior to conducting jet engine testing activities. Calibration and preparation of air samples followed Method T0-10A: Compendium of Methods for Toxic Organic Air Pollution. Both air pumps were placed in a manner such that the air sample would be collected from the breathing zone. During the eight hour sample period, there were employees performing work tasks near both sample locations. The laboratory analytical results of the sampling event are provided in the Data Summary Table,

attached as **Table 1** and the sampling locations are provided on the attached **Figure 1**. As indicated in the attachments, sample ATF-AR-C43-10 (collected adjacent to Test Cell #43) had non-detected (ND) PCBs, and sample ATF-AR-CR2-16 (collected from the ATF compressor room) had non-detected (ND) PCBs. The laboratory quantitation limit (PQL) for these results was 41.7 ng/m³, with a final extraction volume of 5.0 mL. The specific operating parameters of the analytical instruments used by PACE Analytical during sample analysis are detailed in **Attachment 1**.

Please do not hesitate to contact John Rumpf, Counsel for Environmental Affairs at GE Aviation, at (513) 243-4256 or Christopher Bell at Greenberg Traurig LLP at (713) 374-3556 if you have any questions.

Sincerely,

ARCADIS of New York, Inc.



John F. Novotny, PE
Senior Engineer

Attachments

Table 1

Figure 1

Attachment 1

Copies:

John Rumpf, GE

Christopher Bell, Greenberg Traurig, LLP

Table 1
Data Summary - PCB Air Monitoring - September 2014

GE - Aviation - Altitude Test Facility
Cincinnati, Ohio

Sampling ID	Date Collected	Time Collected	Sample Type	Total PCBs (ng/m ³)	Location Description
Event 16					
ATF-AR-C43-10	9/11/2014	15:30	Air	ND	Test Cell 43 open floor area
ATF-AR-CR2-16	9/11/2014	15:35	Air	ND	Second floor of ATF Compressor Room

Notes:

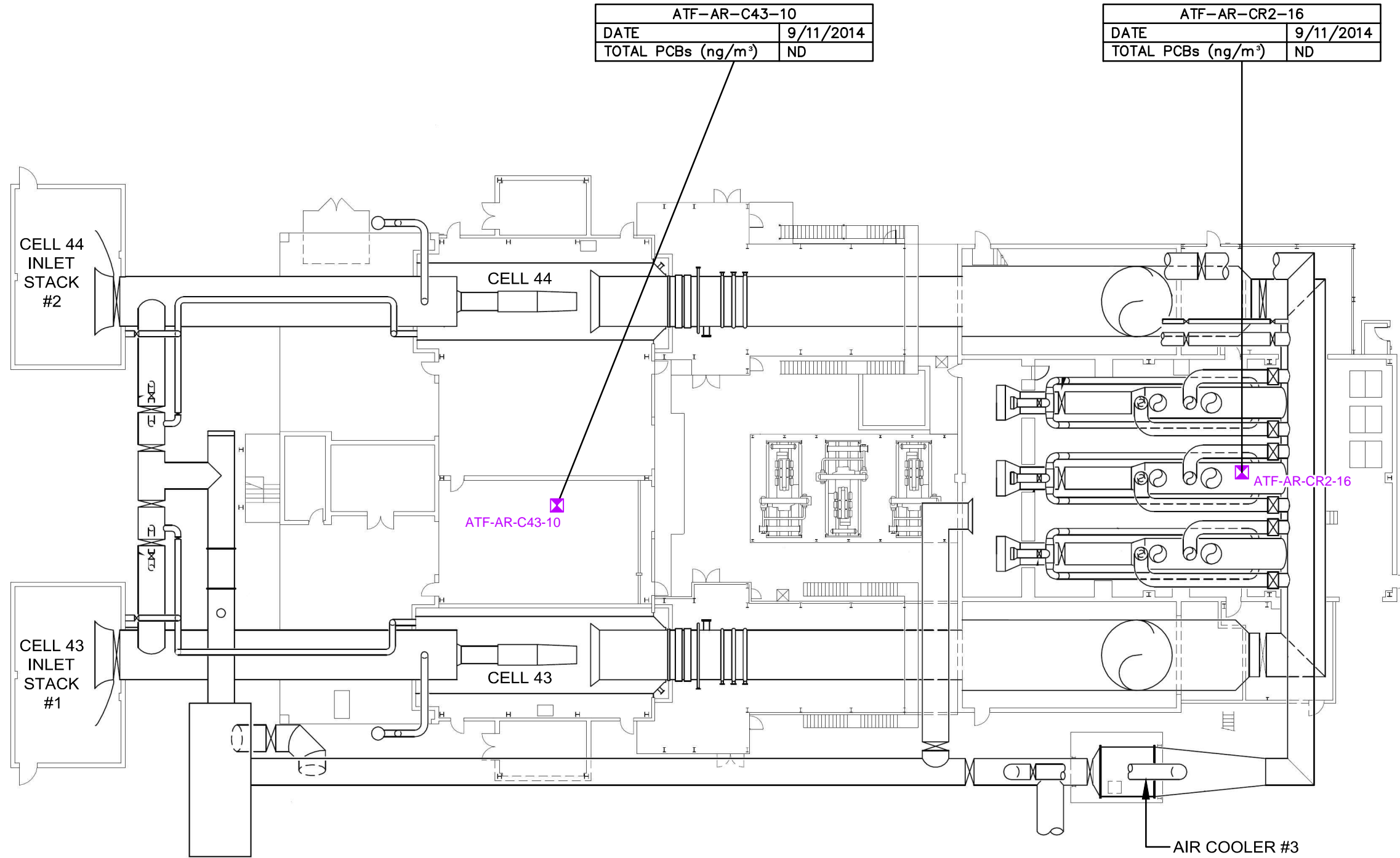
1. Samples collected by ARCADIS personnel and submitted to Pace Analytical Laboratory for analysis using USEPA Compendium Method TO-10A procedures.
2. Air pumps were set up at breathing zone height and operated over an 8-hour interval at an air intake rate of approximately 5 L/min, resulting in approximately 2,400 L of air pulled through the puff for each sample.
3. Event 16 took place at the ATF on September 11, 2014, sampling conducted prior to active jet engine testing in September 2014.
4. Total PCBs - the sum of aroclors 1016 through 1268
5. The final extraction volume of 5.0 mL was conducted by the laboratory.
6. The initial injection volume of 1µL was conducted by the laboratory.
7. The Laboratory determined no sample breakthrough occurred on all sample media.
8. ND (Non-Detect) - Denotes analyte not detected at a concentration greater than the MDL
9. PQL (Practical Quantitation Limit) of 41.7 ng/m³ per aroclor. Denotes lowest analyte concentration reportable for the sample.
10. Time Collected, denotes the time which the air pumps completed the 8-hour run interval.

Abbreviations:

ATF - Altitude Test Facility
 AR - PCB air sample
 C43 - Test Cell #43
 CR2 - compressor room-second floor
 PCBs - polychlorinated biphenyls
 ng/m³ - nanograms per cubic meter

CITY: SYRACUSE, NY DIV: GROUP: ENVCAD DB: LPOSENAUER LD: (Opt) PM: CAVERILL TM: (Opt) LVR: (Opt) ON: "OFF" REF: V:\ENVCAD\SYRACUSE\ACT\MB0031335\2013\RES01\ATSR31335C13.dwg LAYOUT: 1 LAYER: 10/2/2014 1:13 PM ACADVER: 18.1 (LMS TECH) PAGES: 1 PLOT: PLT FULL CTD PLOTTED: 10/6/2014 8:38 AM BY: POSENAUER, LISA

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LEGEND:

✕ AMBIENT PCB AIR MONITORING LOCATION

SAMPLING NOMENCLATURE:

ATF - ALTITUDE TEST FACILITY
AR - PCB AIR SAMPLE
C43 - TEST CELL #43
CR2 - COMPRESSOR ROOM SECOND FLOOR

NOTES:

1. SAMPLING LOCATIONS ARE APPROXIMATE.
2. ng/m³ - NANOGRAMS PER CUBIC METER
3. TOTAL PCBs - THE SUM OF AROCLORS 1016 THROUGH 1268.
4. J - DENOTES AN ESTIMATED CONCENTRATION. THE CONCENTRATION RESULT IS GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL) BUT LESS THAN THE PQL.

NOT TO SCALE

GE-AVIATION
CINCINNATI, OHIO
AIR TEST SUMMARY REPORT

**DATA SUMMARY - PCB RESULTS
AMBIENT PCB AIR MONITORING**



FIGURE
1

GC #: GC-20 8082 High Level Hydrogen
 Method: Method 3
 Column: GC20F ZB-1MS 20M 0.18mm 0.18um
 GC20B ZB-5 20M 0.18mm 0.18um
 Date: 7/9/2014
 Analyst: JKA
 File Name: C:\Users\KELLYH~1\NOR\AppData\Local\Temp\XPgrpwis\GC20_Parameters_1.xls]8082 HL H2

Sample Delivery: SEE LEAP PARAMETERS

Column Oven:

Step	Temp (°C)	Rate (°C/min)	Hold (min)	Total (min)
Initial	150	-----	1.41	1.41
1	290	17.5	0.65	10.06

Stabilization Time (min): 0.5

Injector: Front CP-1177

1177 Oven Power: ON
 1177 Temperature (°C) 300

Time	Split State	Split Ratio
Initial	ON	35

Flow/PSI(Front EFC, Type 1):

Step	Pres (psi)	Rate (psi/min)	Hold (min)	Total (min)
Initial	*	-----	10	10

Constant Flow Mode Enable: NO
 Column Flow Rate (ml/min): 1.5

Detector: Front ECD

ECD Oven Power: ON
 Temperature (°C) 300
 Electronics: ON
 Range: 1

Time	Range	Autozero
Initial	1	YES

ECD Adjustment
 Time Constant: Fast
 Cell Current: CAP
 Contact Potential (mV): *

Front ECD Adjustments

Make-up Flow (mL/min) 35

Analog Output

Detectors: Front: ECD
 Middle: ECD
 Rear: None

Time	Signal Source	Attenuation
Initial	Front Detector	1
Time	Signal Source	Attenuation
Initial	Middle Detector	1
Time	Signal Source	Attenuation
Initial	Rear Detector	1

Valve Table:

Time	1	2	3	4	5	6	7
	None	None	None	None	None	None	None
Initial	-----	-----	-----	-----	-----	-----	-----

Initial valve state=Off

Injector: Middle CP-1177

1177 Oven Power: ON
 1177 Temperature (°C) 300

Time	Split State	Split Ratio
Initial	ON	30

Flow/PSI(Front EFC, Type 1):

Step	Pres (psi)	Rate (psi/min)	Hold (min)	Total (min)
Initial	*	-----	10	10

Constant Flow Mode Enable: NO
 Column Flow Rate (ml/min): 1.5

Middle ECD

ECD Oven Power: ON
 Temperature (°C) 300
 Electronics: ON
 Range: 1

Time	Range	Autozero
Initial	1	YES

Fast
 CAP
 *

Middle ECD Adjustments

35

*values may change with use